ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9404200153 DOC.DATE: 94/04/13 NOTARIZED: NO DOCKET #
FACIL:50-250 Turkey Point Plant, Unit 3, Florida Power and Light C 05000250
50-251 Turkey Point Plant, Unit 4, Florida Power and Light C 05000251
AUTH.NAME AUTHOR AFFILIATION
PLUNKETT,T.F. Florida Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION
Document Control Branch (Document Control Desk)

SUBJECT: Responds to request for addl info re NRC Bulletin 90-001, Suppl 1, "Loss of Fill-Oil in Transmitters Mfg by Rosemount."

DISTRIBUTION CODE: IE39D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 5
TITLE: NRC Bulletin 90-001, Loss of Fill Oil in Transmitters Mfg by Rosemoun

NOTES:

	RECIPIENT ID CODE/NAME		COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL
	PD2-2 PD		1	1	CROTEAU,R	1	1
INTERNAL:	NRR/DRPW/OGCB		1	1	NRR/HICB	2	2
	NRR/OEAB		2	2	NRR/PDII-1	1	1
	REG FILE	02	1	1	RES/EMEB	1	1
	RGN2 FILE	01	1	1			
EXTERNAL:	NRC PDR		1	1	NSIC	1	1

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK, ROOM P1-37 (EXT. 20079) TO ELIMINATE YOUR NAME FROM DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTTR 13 ENCL 13

RIDS/ADDS

RIDS/ADDS

FPL

APR 19 1994

L-94-079
10 CFR 50.4

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555

Subject: Turkey Point Units 3 and 4
Docket Nos. 50-250 and 50-251
NRC Bulletin 90-01, Supplement 1
Loss of Fill-Oil in Transmitters
Manufactured by Rosemount - Response
to Request for Additional Information

By letter L-93-41, dated March 3, 1993, Florida Power & Light Company (FPL) submitted a response to NRC Bulletin 90-01, Supplement 1, "Loss of Fill-Oil in Transmitters Manufactured by Rosemount", issued December 22, 1992. The purpose of this letter is to provide in the attachment additional information as requested by members of the NRC staff.

If you have any questions regarding this information, please contact us.

Very truly yours,

T. F. Plunkett
Vice President
Turkey Point Plant

Attachment

TFP/OIH

cc: Stewart D. Ebneter, Regional Administrator, Region II, USNRC
T. P. Johnson, Senior Resident Inspector, USNRC, Turkey Point Plant

190033

IE39
1/1

INFORMATION REGARDING
NRC BULLETIN 90-01, SUPPLEMENT 1

As a result of FPL's submittal of March 3, 1993, the NRC staff has identified some additional information that is required to clarify FPL's position related to the Turkey Point Units 3 and 4 Enhanced Surveillance Program.

Requested Action Item 1.a

NRC requests the following information regarding Rosemount transmitters which fall under Requested Action Item 1.a:

1) **Identify transmitters which have reached "maturity."**
2) **Verify if extended surveillance intervals based on "maturity" is being considered. Describe the acceptance criteria and justification for extending the surveillance interval.**

Per FPL letter L-93-41, dated March 3, 1993, FPL identified all safety related Rosemount Model 1153 Series B, Model 1153 Series D, and Model 1154 transmitters manufactured before July 11, 1989, that have a normal operating pressure greater than 1500 psig and that are installed in reactor protection trip systems, Engineered Safety Features (ESF) actuation systems or Anticipated Transient Without Scram (ATWS) systems. There are no transmitters in this group that are considered "mature." Turkey Point does not plan to re-classify any transmitters in this category as "mature." The transmitters will continue to be monitored on a monthly basis using the enhanced surveillance program until replacement; therefore, justification for other than monthly surveillance is not required.

Requested Action Item 1.b

NRC requests the following information regarding Rosemount transmitters which fall under Requested Action Item 1.b:

1. **Verify if surveillance intervals will be extended for any transmitters which fall under this category, and provide the technical justification and acceptance criteria which will be used.**

2. **Provide technical justification for extending the surveillance interval from quarterly to a refueling basis for the two transmitters identified as "mature."**

Per FPL letter L-93-41, dated March 3, 1993, FPL identified all safety related Rosemount Model 1153 Series B, Model 1153 Series D, and Model 1154 transmitters manufactured before July 11, 1989, that have a normal operating pressure greater than 1500 psig and that are used in safety related applications but are not installed in reactor protection trip systems, ESF actuation

systems or ATWS systems. Turkey Point does not plan to re-classify any other transmitters in this category as "mature." The transmitters will continue to be monitored on a quarterly basis using the enhanced surveillance program until replacement. Therefore, justification for other than a quarterly surveillance is not required.

FPL identified two transmitters in Action Category 1.b as having reached time-at-pressure "maturity" per the guidance provided in Supplement 1 of Bulletin 90-01 and Rosemount Technical Bulletin Number 4. LT-3-462 and LT-4-462, wide range pressurizer level transmitters, measure pressurizer level for wide range indication on the alternate shutdown panel in the event of control room evacuation. LT-3-462 and LT-4-462 are Rosemount 1153 Series D units of Range Code 5. Rosemount Technical Bulletin Number 4 specifies a "maturity" criterion of 60,000 psi-months for all pressure transmitters of Range Codes 3 through 5. LT-3-462 has accumulated 115,000 psi-months of operation, and LT-4-462 has accumulated 155,000 psi-months. These times far exceed the criterion of 60,000 psi-months specified by Rosemount Technical Bulletin 4. Additionally, review of the two transmitters' historical performance data verified they have not exhibited loss of fill-oil symptoms.

Based on the large number of psi-months without loss of fill-oil symptoms, LT-3-462 and LT-4-462 will be monitored as part of the enhanced surveillance program at least once every refueling, but not exceeding 24 months.

Required Action 1.e

For those transmitters which have a normal operating pressure greater than 500 psig and less than or equal to 1500 psig, have reached the appropriate psi-month threshold criterion recommended by Rosemount, and are excluded from the enhanced surveillance program, address how confidence will be maintained in the ability to detect transmitter failures.

FPL letter L-93-41, dated March 3, 1993, provided FPL's response to NRC Bulletin 90-01, Supplement 1, Required Action Items 1.c and 1.d as it applies to Turkey Point Units 3 and 4. Required Action Items 1.c and 1.d address Rosemount Model 1153 and Model 1154 transmitters manufactured before July 11, 1989, that have a normal pressure greater than 500 psig but less than 1500 psig and perform a safety related function. There are no transmitters in this group that are considered "mature." Turkey Point does not plan to re-classify any transmitters in this category as "mature." The transmitters which fall under Required Action Item 1.c will continue to be monitored on a monthly basis using the enhanced surveillance program until replacement; therefore, a high degree of confidence is maintained for detecting loss of fill-oil failures. The transmitters which fall under Required Action Item 1.d will continue to be monitored at least once every

refueling, but not exceeding 24 months, using the enhanced surveillance program until replacement. Therefore, a high degree of confidence is maintained for detecting loss of fill-oil failures.

Required Action 1.f

For those transmitters which have a normal operating pressure less than or equal to 500 psig and are excluded from the enhanced surveillance program, address how confidence will be maintained in the ability to detect transmitter failures.

Rosemount Technical Bulletin 4 reports an acceptably low risk of transmitter failure for operating pressures below 250 psig. On this basis, FPL has excluded from the enhanced surveillance program all safety related transmitters that have normal operating pressures less than or equal to 250 psig. Safety related transmitters that have normal operating pressures greater than 250 psig and less than or equal to 500 psig have been excluded from the enhanced surveillance program based on other bulletin criteria, namely transmitters which are Rosemount Model 1153 Series A, or transmitters which have a sensor module serial number greater than 2182605. Transmitters which are excluded from the enhanced surveillance program are tested in accordance with the applicable surveillance procedures. Transmitters found to be sluggish during standard calibration will be evaluated in accordance with the guidance provided in Rosemount Technical Bulletin 4, Appendix B. Therefore, a high degree of confidence is maintained for detecting loss of fill-oil failures.

Requested Action 2

Provide details of the Turkey Point Units 3 and 4 enhanced surveillance program.

Turkey Point Units 3 and 4 enhanced surveillance program is based on the guidance and recommendations of Rosemount Technical Bulletin 4. Rosemount has developed diagnostic guidelines that can be used to monitor and identify transmitters suspected of loss of fill-oil. The Turkey Point Units 3 and 4 enhanced surveillance program utilizes the output drift analysis and sluggish response diagnostic guidelines of Rosemount Technical Bulletin 4. The output drift analysis can be divided into two types of analyses: 1) normal calibration data analysis which uses the as-found and as-left data to determine cumulative positive or negative drift trends, 2) operating data analysis which involves trending and comparison of actual operating data on processes with redundant transmitters to identify loss of fill-oil symptoms.

The enhanced surveillance program for transmitters which fall under the requirements of Requested Actions 1.a and 1.b follows the recommendations of Rosemount Technical Bulletin 4 Appendices A and B. The surveillance will be performed monthly or quarterly, as specified in FPL letter L-93-41, Response to Requested Actions 1.a and 1.b. The Turkey Point Units 3 and 4 enhanced surveillance program monitors redundant, on-line transmitters simultaneously using the Emergency Response Data Acquisition and Display System (ERDADS). The periodic change observed in the data obtained from the ERDADS will be compared against the drift criteria specified by Rosemount Technical Bulletin 4, Appendix A, Table A1. Channels which exhibit excessive drift will be evaluated. Additionally, transmitters found to be sluggish during standard calibration will be evaluated in accordance with the guidance provided in Rosemount Technical Bulletin 4, Appendix B.

The enhanced surveillance program for transmitters which fall under the requirements of Requested Actions 1.c and 1.d follows the recommendations of Rosemount Technical Bulletin 4 Appendices A and B. Using existing plant surveillance procedures, transmitter response will be evaluated during standard calibration on a refueling outage basis with intervals not to exceed 24 months. Drift data will be collected and trending will be performed by comparing the as-found data with the as-left data. Any transmitter that approaches or reaches the maximum allowable cumulative drift as defined in Rosemount Technical Bulletin 4, Appendix A, Table A1, will be evaluated. Additionally, transmitters found to be sluggish during standard calibration will be evaluated in accordance with the guidance provided in Rosemount Technical Bulletin 4, Appendix B.